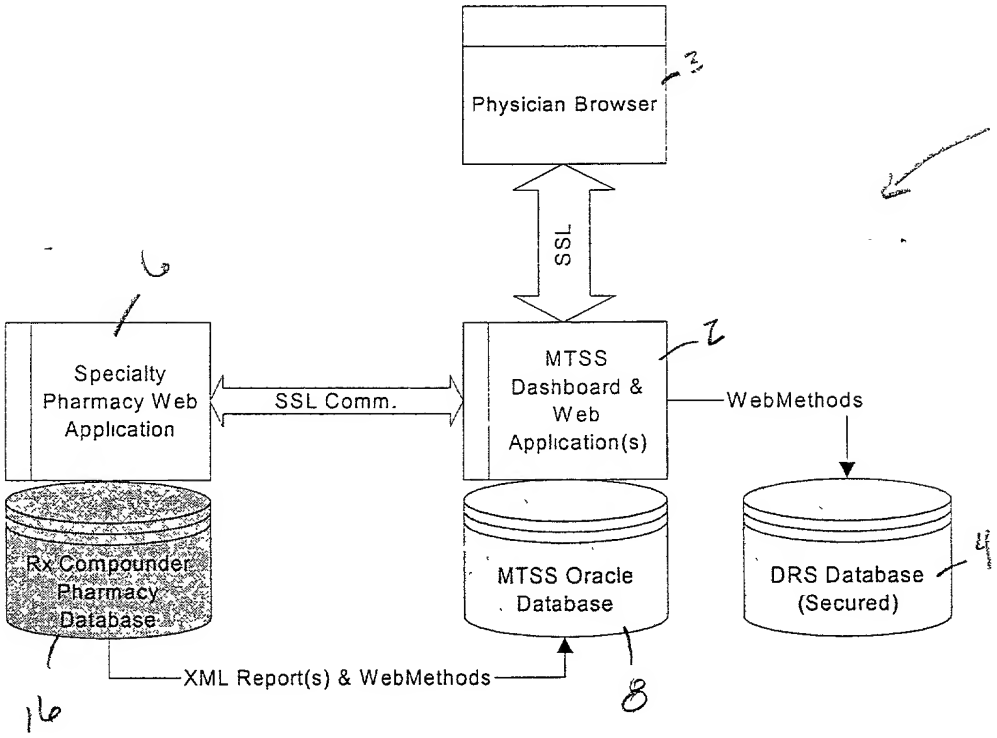
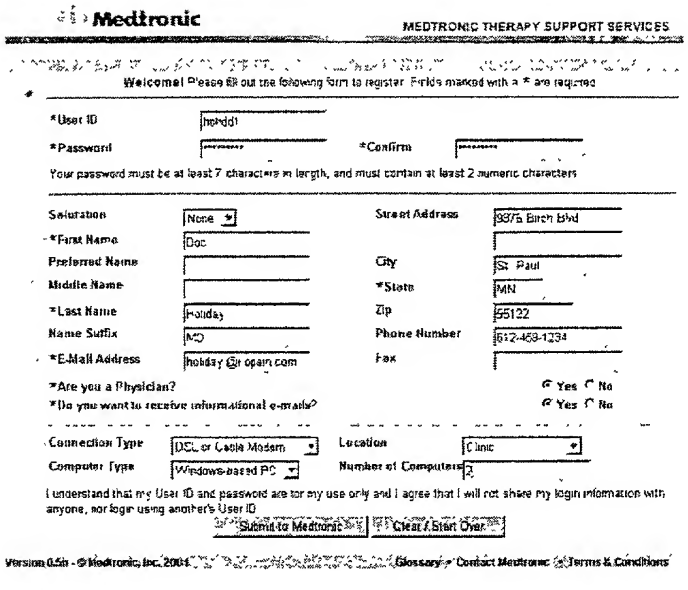

Physician Browser
SSL
Specialty Pharmacy Web Application
SSL Comm.
MTSS Dashboard & Web Application(s)
WebMethods
Rx Compounder Pharmacy Database
MTSS Oracle Database
DRS Database (Secured)
XML Report(s) & WebMethods

Figure 1

ADA	Application Development Architecture
ETA	Enterprise Technology Architecture
HIPPA	Health Insurance Patient Privacy Act
FDA	Food and Drug Administration
B2B	Business-to-Business
B2C	Business-to-Consumer
CMS -	Content Management System
PIN	Personal Identification Number (works like a password)
DRS	Device Registration System (Oracle® instance)
JSP	Java Server Page
LDAP	Lightweight Directory Access Protocol (via Oblix® policy server)
SSL	Secure Socket Layer (Browser data communications encryption)
VPN	Virtual Private Network (IP-Secure implementation, B2B data encryption)
XML	eXtensible Markup Language (for machine readable documents and B2B communications)
TSS	Therapy Support Services, or TSS for short
SAIT	Server Administrator Information Technology
SRS	System Requirements Specification
DD	Design Detail Document
SVP	System/Software Validation Plan
VT	Short for Verification Test checklist
SVR	System/Software Validation Report

Figure 2


Medtronic
MEDTRONIC THERAPY SUPPORT SERVICES
Welcome! Please fill out the following form to register. Fields marked with a * are required.
*User ID
hpridd1
*Password
*Confirm
Your password must be at least 7 characters in length, and must contain at least 2 numeric characters
Salutation
None
*First Name
Doc
Preferred Name
Middle Name
*Last Name
Holiday
Name Suffix
MD
*E-Mail Address
holiday@tropain.com
Street Address
9875 Birch Blvd
City
St. Paul
*State
MN
Zip
55122
Phone Number
612-459-1234
Fax
*Are you a Physician?
Yes No
*Do you want to receive informational e-mails?
Yes No
Connection Type
DSL or Cable Modem
Location
Clinic
Computer Type
Windows-based PC
Number of Computers
2
I understand that my User ID and password are for my use only and I agree that I will not share my login information with anyone, nor login using another's User ID.
Submit to Medtronic
Clear / Start Over
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Glossary
Contact Medtronic
Terms & Conditions

Figure 3

Contact Medtronic

Email Us!

Please fill out the form below to receive more information about the Therapy Support Services

Fields marked with * are required

*First Name

*Last Name

*E-Mail Address

Street Address

City

*State

Zip

*Phone Number

Fax

*Message

Issue: Forgot your Username/Password

Fields marked with * are required

Send Clear

FIG 4

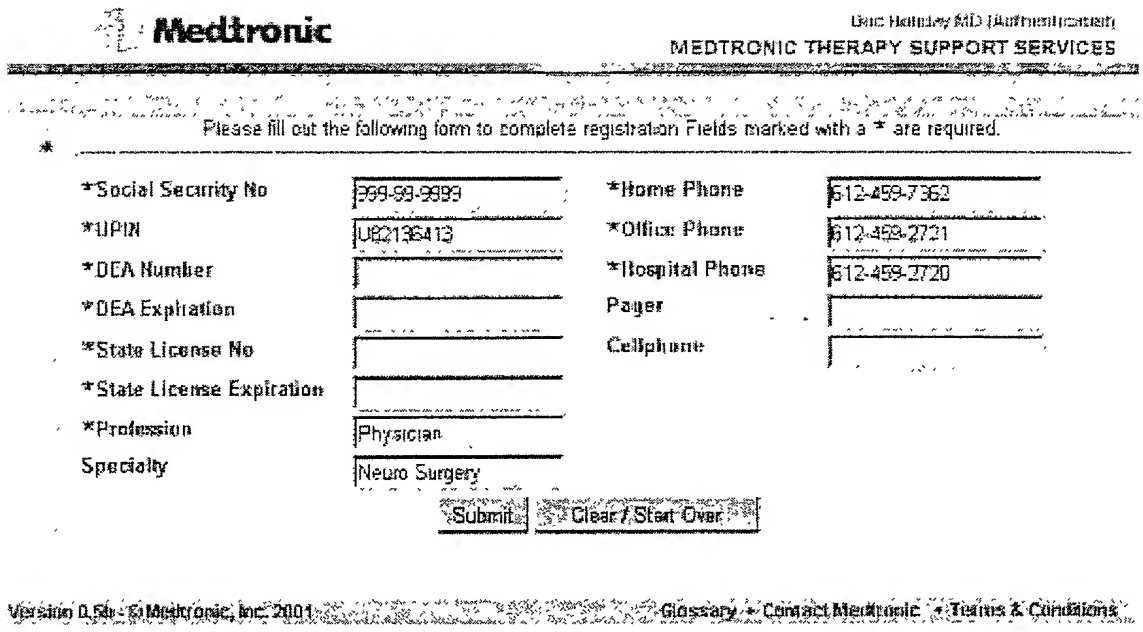
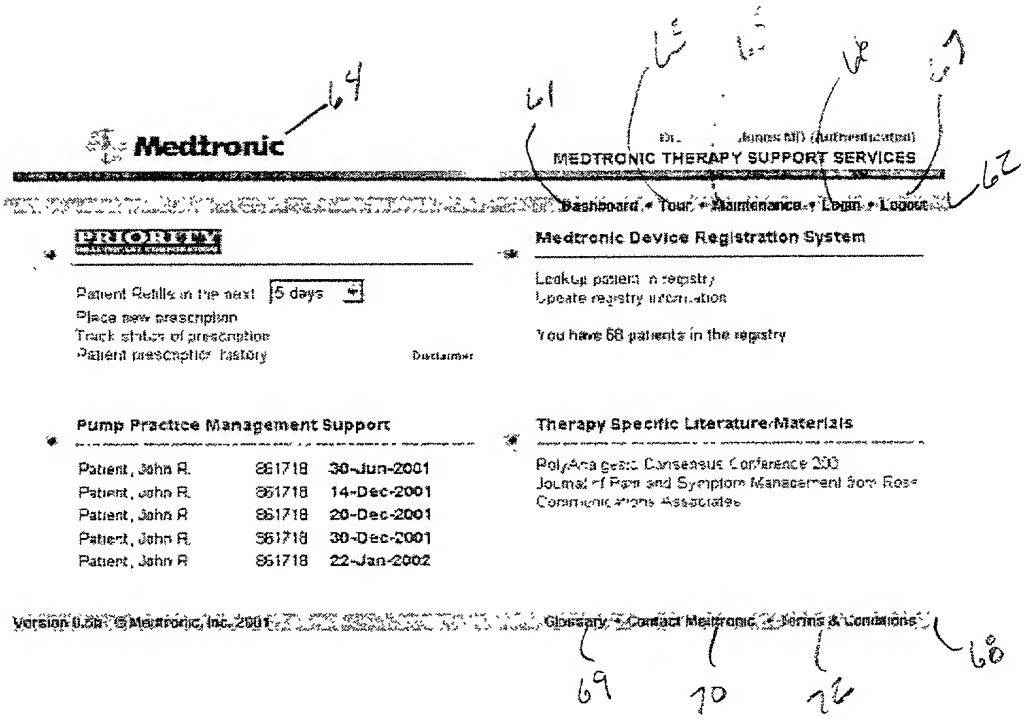


FIG 5

Appendix Page 38 of 38


Medtronic
MEDTRONIC THERAPY SUPPORT SERVICES
Dashboard • Tour • Maintenance • Login • Logout
Patient Refills in the next 5 days
Place new prescription
Track status of prescription
Patient prescription history
Disclaimer
Medtronic Device Registration System
Lookup patient in registry
Update registry information
You have 68 patients in the registry
Pump Practice Management Support
Patient, John R. 861718 30-Jun-2001
Patient, John R. 861718 14-Dec-2001
Patient, John R 861718 20-Dec-2001
Patient, John R. 861718 30-Dec-2001
Patient, John R 861718 22-Jan-2002
Therapy Specific Literature/Materials
Polyneuropathic Consensus Conference 200
Journal of Pain and Symptom Management from Rose Communications Associates
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Glossary • Contact Medtronic • Terms & Conditions
64
61
63
62
67
68
69
70
71

FIG 6

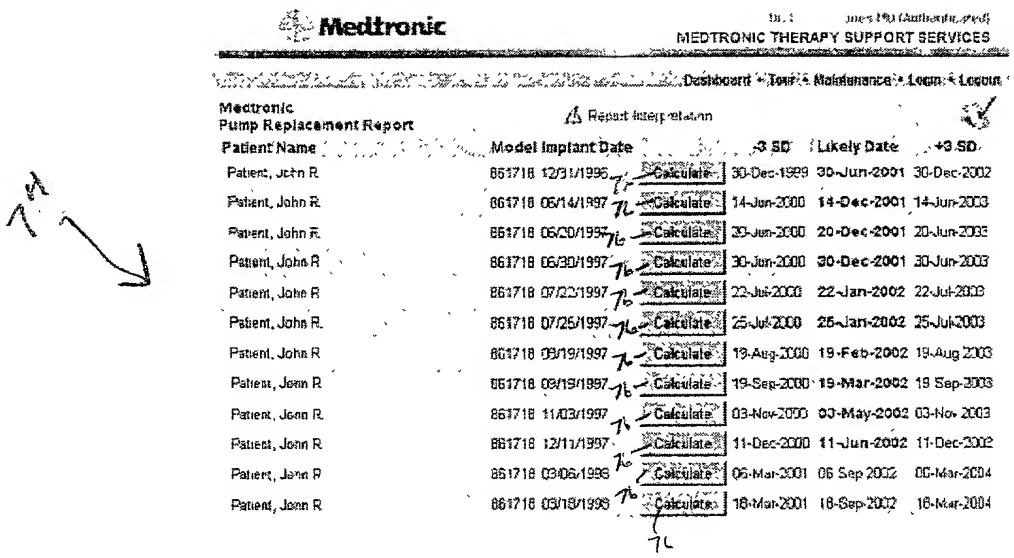
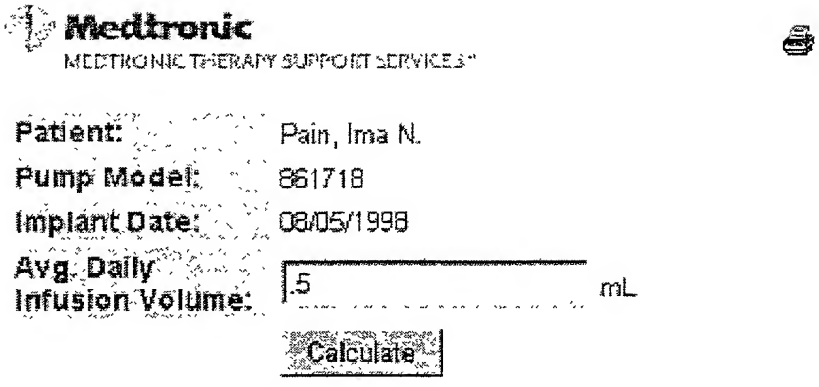

Medtronic
MEDTRONIC THERAPY SUPPORT SERVICES
Dashboard
Tools
Maintenance
Logs
Logout
Medtronic
Pump Replacement Report
Report Interpretation
Patient Name
Model
Implant Date
-3 SD
Likely Date
+3 SD
Patient, John R 861718 12/31/1996 Calculate 30-Dec-1999 30-Jun-2001 30-Dec-2002
Patient, John R 861718 06/14/1997 Calculate 14-Jun-2000 14-Dec-2001 14-Jun-2003
Patient, John R 861718 06/20/1997 Calculate 20-Jun-2000 20-Dec-2001 20-Jun-2003
Patient, John R 861718 06/30/1997 Calculate 30-Jun-2000 30-Dec-2001 30-Jun-2003
Patient, John R 861718 07/22/1997 Calculate 22-Jul-2000 22-Jan-2002 22-Jul-2003
Patient, John R 861718 07/25/1997 Calculate 25-Jul-2000 25-Jan-2002 25-Jul-2003
Patient, John R 861718 08/19/1997 Calculate 19-Aug-2000 19-Feb-2002 19-Aug-2003
Patient, John R 861718 09/19/1997 Calculate 19-Sep-2000 19-Mar-2002 19-Sep-2003
Patient, John R 861718 11/03/1997 Calculate 03-Nov-2000 03-May-2002 03-Nov-2003
Patient, John R 861718 12/11/1997 Calculate 11-Dec-2000 11-Jun-2002 11-Dec-2003
Patient, John R 861718 03/06/1998 Calculate 06-Mar-2001 06-Sep-2002 06-Mar-2004
Patient, John R 861718 03/18/1998 Calculate 18-Mar-2001 18-Sep-2002 18-Mar-2004

FIG 7

FIG 8


Medtronic
MEDTRONIC THERAPY SUPPORT SERVICES™
Patient: Pain, Ima N.
Pump Model: 861718
Implant Date: 08/05/1998
Avg. Daily Infusion Volume: .5 mL
Calculate
-3 SD: 05-Nov-2001
Mean Date: 05-Mar-2002 [43.6 Months]
+3 SD: 05-Mar-2002
Important: This calculation assumes constant daily infusion volume over the life of the pump. To improve your calculation, enter your best estimate of the programmed average daily infusion volume since implant.

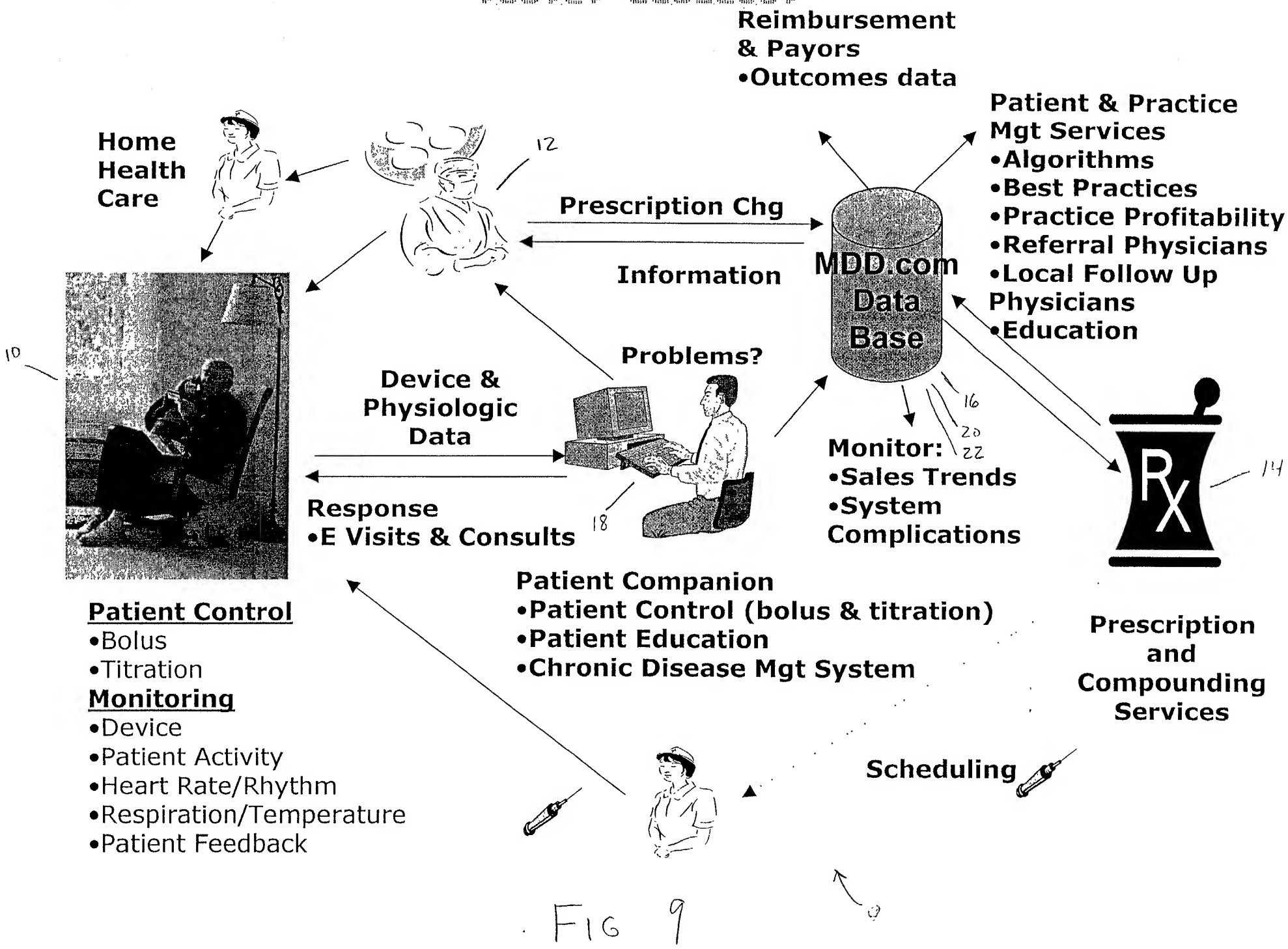

Reimbursement
& Payors
•Outcomes data
Patient & Practice
Mgt Services
•Algorithms
•Best Practices
•Practice Profitability
•Referral Physicians
•Local Follow Up
Physicians
•Education
Home
Health
Care
12
Prescription Chg
Information
MDD.com
Data
Base
10
Problems?
Device &
Physiologic
Data
Response
•E Visits & Consults
18
16
20
22
Monitor:
•Sales Trends
•System
Complications
Rx
14
Patient Control
•Bolus
•Titration
Monitoring
•Device
•Patient Activity
•Heart Rate/Rhythm
•Respiration/Temperature
•Patient Feedback
Patient Companion
•Patient Control (bolus & titration)
•Patient Education
•Chronic Disease Mgt System
Prescription
and
Compounding
Services
Scheduling
8

FIG 9

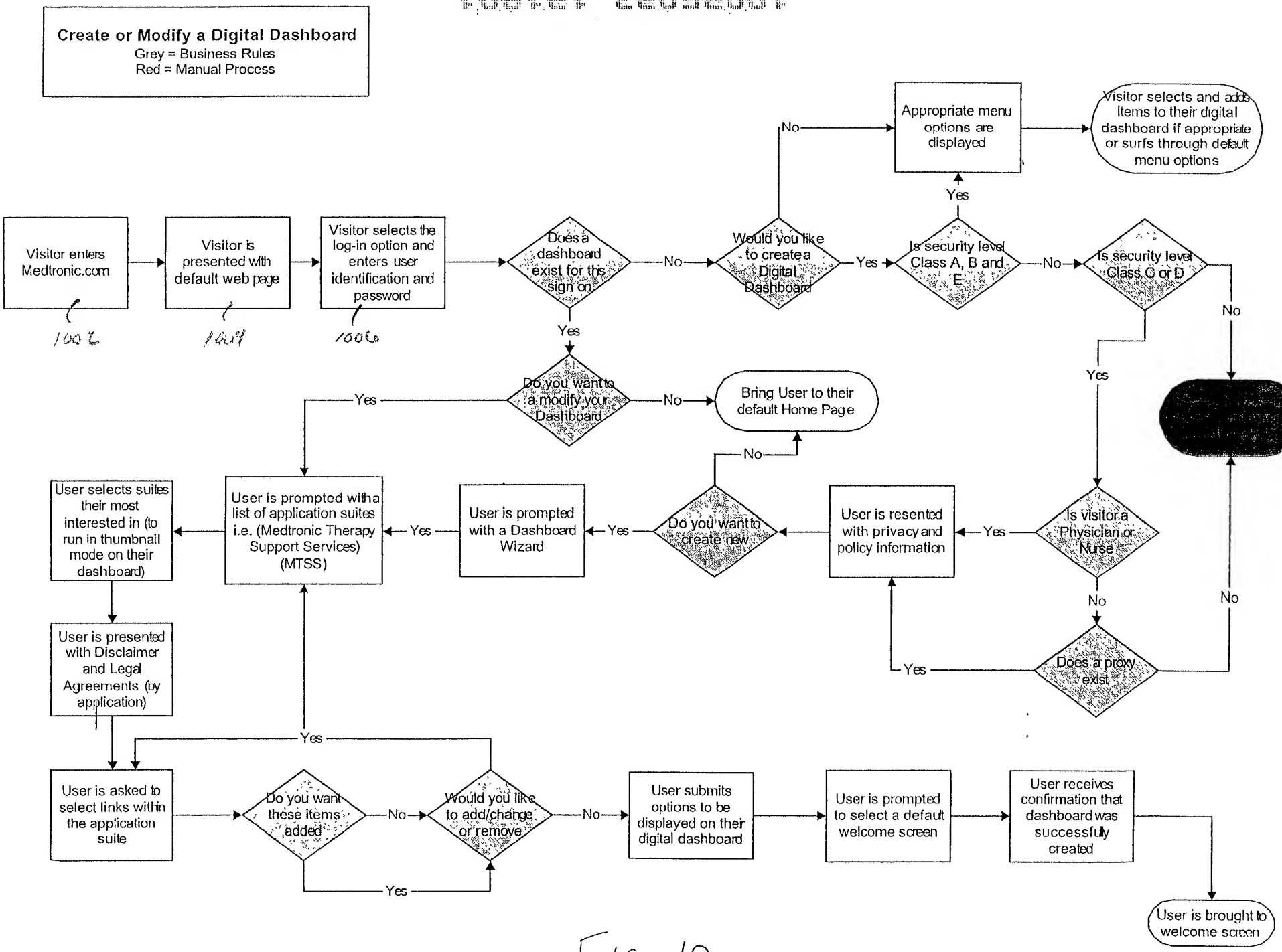

Create or Modify a Digital Dashboard
Grey = Business Rules
Red = Manual Process
Visitor enters Medtronic.com
Visitor is presented with default web page
Visitor selects the log-in option and enters user identification and password
Does a dashboard exist for this sign on
Would you like to create a Digital Dashboard
Is security level Class A, B and E
Is security level Class C or D
Appropriate menu options are displayed
Visitor selects and adds items to their digital dashboard if appropriate or surfs through default menu options
Do you want to a modify your Dashboard
Bring User to their default Home Page
User selects suites their most interested in (to run in thumbnail mode on their dashboard)
User is prompted with a list of application suites i.e. (Medtronic Therapy Support Services) (MTSS)
User is prompted with a Dashboard Wizard
Do you want to create new
User is resented with privacy and policy information
Is visitor a Physician or Nurse
Does a proxy exist
User is presented with Disclaimer and Legal Agreements (by application)
User is asked to select links within the application suite
Do you want these items added
Would you like to add/change or remove
User submits options to be displayed on their digital dashboard
User is prompted to select a default welcome screen
User receives confirmation that dashboard was successfully created
User is brought to welcome screen
Yes
No

FIG 10

PATENT APPLICATION

B2B-WebMethods Infrastructure

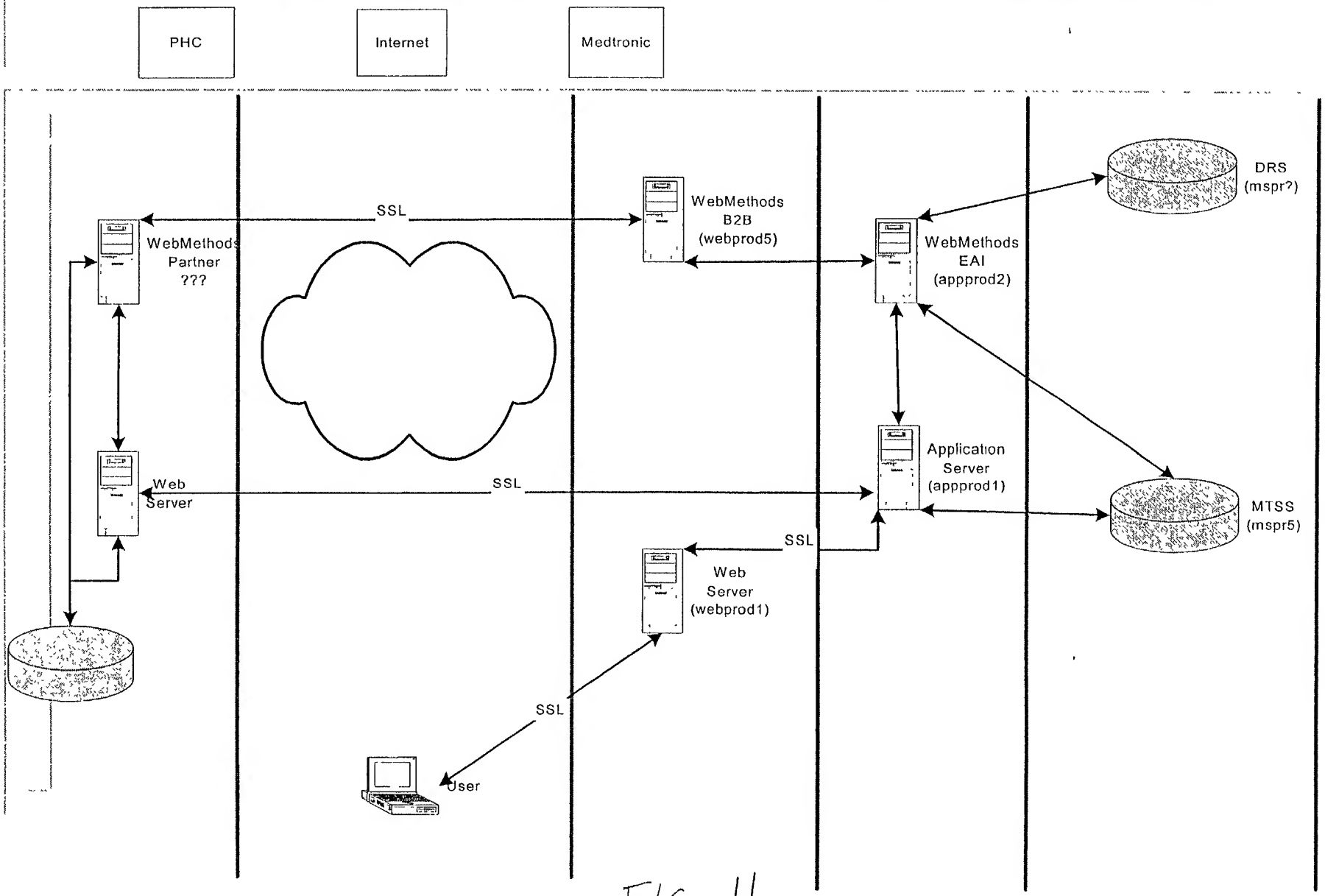


FIG 11

Dashboard Example: TSS

Guy Scott Bristol (authenticated)
THERAPY SUPPORT SERVICES

Dashboard • Tour • Maintenance • Login • Logout

PRIORITY HEALTHCARE CORPORATION

Patient Refills in the next 5 days

Place new prescription
Track status of prescription
Patient prescription history

Disclaimer

Medtronic Device Registration System

Lookup patient in registry
Register a new implant
Update registry information

You have 6 patients in the registry.

Pump Practice Management Support

Gree , D	8626L10	01-Mar-2004
Gree , D	8626L10	01-Mar-2004
Gree , D	8626L10	01-Mar-2004
Gree , D	8626L10	01-Mar-2004
Gree , D	8626L10	01-Mar-2004

Therapy Specific Literature/Materials

Scientific American Medicine
Medical Journals
Clinical Pharmacology
Expert Interviews

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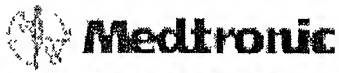
FIG. 12

Patient Reminder status

FIG 13

Application Example 1



Guy Bristol (authenticated)
THERAPY SUPPORT SERVICES

Registered Pump Implants (Mock Up)

Back

Lookup Patient
Register Device
Update Registry

	Patient Name	Model	Implant Date			Initial Drug	
Select	Patient 1	Model 1	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 2	Model 2	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 3	Model 3	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 4	Model 4	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 5	Model 5	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 6	Model 6	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 7	Model 7	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 8	Model 8	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 9	Model 9	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 10	Model 10	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 11	Model 11	12-Jan-2000	Indication	History	Generic	Update
Select	Patient 12	Model 12	12-Jan-2000	Indication	History	Generic	Update

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FIG 14

Application Example 2 (B2B)

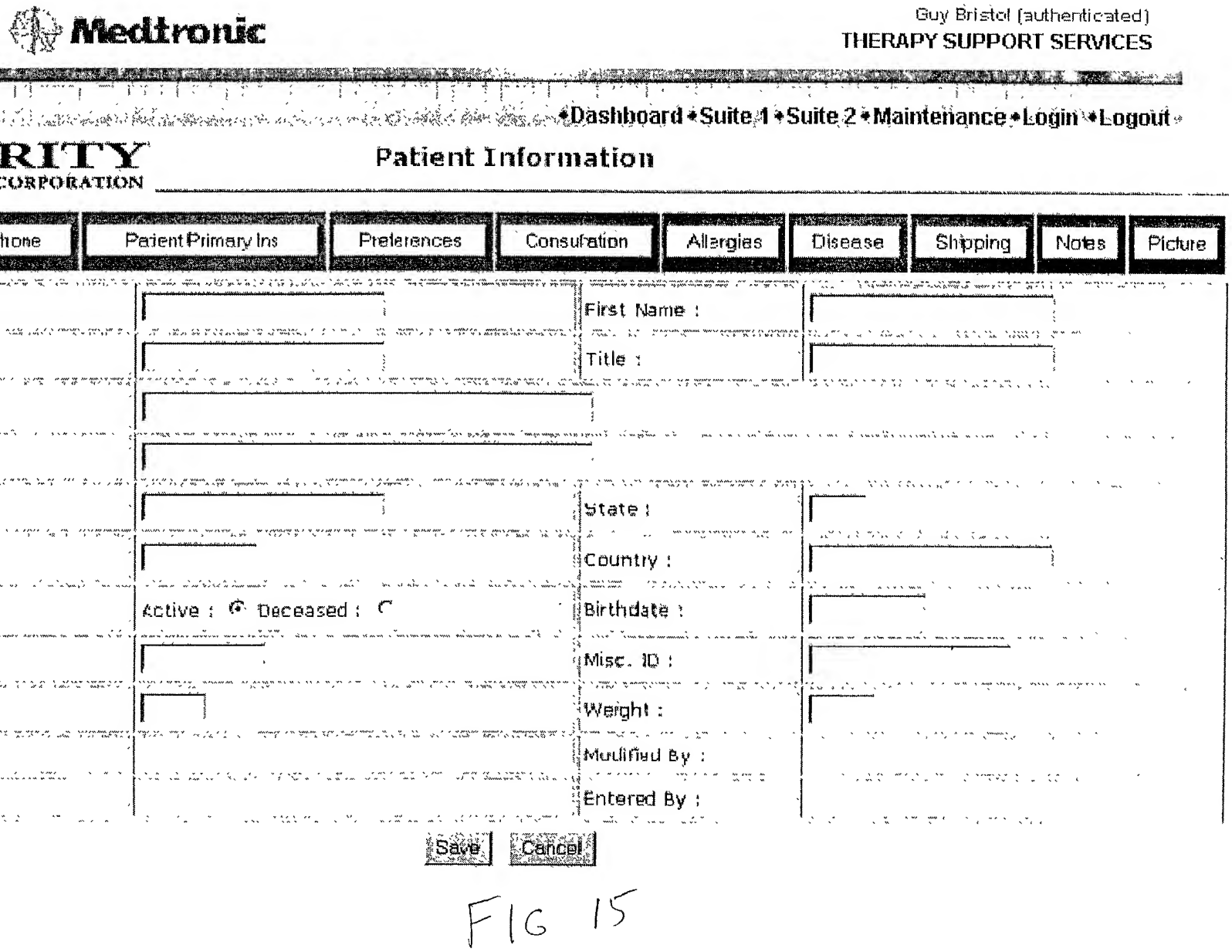

FIG 15

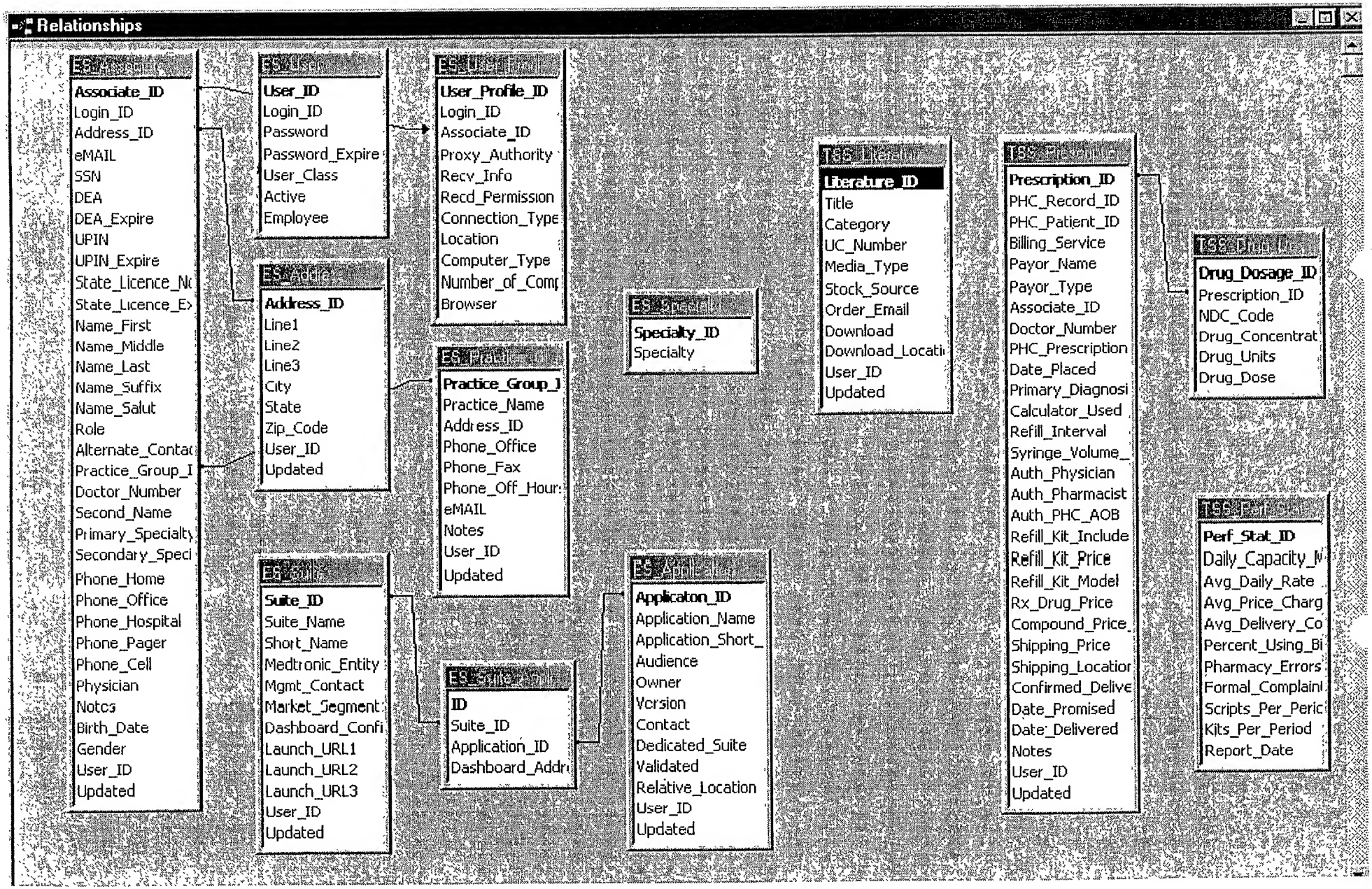
Relationships
Associate_ID
Login_ID
Address_ID
eMAIL
SSN
DEA
DEA_Expire
UPIN
UPIN_Expire
Name_First
Name_Middle
Name_Last
Name_Suffix
Name_Salut
Role
Practice_Group_I
Doctor_Number
Second_Name
Primary_Specialty
Secondary_Speci
Phone_Home
Phone_Office
Phone_Hospital
Phone_Pager
Phone_Cell
Physician
Notes
Birth_Date
Gender
User_ID
Updated
User_ID
Login_ID
Password
Password_Expire
User_Class
Active
Employee
Address_ID
Line1
Line2
Line3
City
State
Zip_Code
User_ID
Updated
User_Profile_ID
Login_ID
Associate_ID
Proxy_Authority
Recv_Info
Recd_Permission
Connection_Type
Location
Computer_Type
Number_of_Comp
Browser
Practice_Group_I
Practice_Name
Address_ID
Phone_Office
Phone_Fax
Phone_Off_Hour
eMAIL
Notes
User_ID
Updated
Specialty_ID
Specialty
Suite_ID
Suite_Name
Short_Name
Medtronic_Entity
Mgmt_Contact
Market_Segment
Dashboard_Confi
Launch_URL1
Launch_URL2
Launch_URL3
User_ID
Updated
ID
Suite_ID
Application_ID
Dashboard_Addr
Applicaton_ID
Application_Name
Application_Short_
Audience
Owner
Version
Contact
Dedicated_Suite
Validated
Relative_Location
User_ID
Updated
Literature_ID
Title
Category
UC_Number
Media_Type
Stock_Source
Order_Email
Download
Download_Locati
User_ID
Updated
Prescription_ID
PHC_Record_ID
PHC_Patient_ID
Billing_Service
Payor_Name
Payor_Type
Associate_ID
Doctor_Number
PHC_Prescription
Date_Placed
Primary_Diagnosi
Calculator_Used
Refill_Interval
Syringe_Volume_
Auth_Physician
Auth_Pharmacist
Auth_PHC_AOB
Refill_Kit_Include
Refill_Kit_Price
Refill_Kit_Model
Rx_Drug_Price
Compound_Price_
Shipping_Price
Shipping_Locatior
Confirmed_Delive
Date_Promised
Date_Delivered
Notes
User_ID
Updated
Drug_Dosage_ID
Prescription_ID
NDC_Code
Drug_Concentrat
Drug_Units
Drug_Dose
Perf_Stat_ID
Daily_Capacity_M
Avg_Daily_Rate
Avg_Price_Charg
Avg_Delivery_Co
Percent_Using_Bi
Pharmacy_Errors
Formal_Complaint
Scripts_Per_Perio
Kits_Per_Period
Report_Date

Figure 16.